News release

Climate change over the UK

16 April 2002

New scenarios of how UK climate might change over the course of the century are being launched today (16 April 2002) by Margaret Beckett, Secretary of State for the Environment, Food and Rural Affairs. The scenarios are based on predictions which were specially undertaken by the Met Office's Hadley Centre for Climate Prediction and Research. They show changes in much more detail than has been available previously, as they have been produced using the Hadley Centre's new regional climate model with a resolution of 50 km.

Extensive analyses of the results from the model have been carried out by the Hadley Centre and the Tyndall Centre at UEA Norwich. Shown below are changes in precipitation and temperature, by the 2080s, for summer and winter seasons. Winter rainfall is predicted to increase by up to 30%, particularly in the south, with the potential for a greater incidence of flooding, but summer rainfall could decrease by up to 50%, again particularly in the south, threatening water supplies. These changes are more extreme than in previous scenarios. Sea level will rise, leading to a much greater frequency of high water levels from storm surges on some coasts. Changes in extremes are also analysed; for example, days of heavy rainfall are predicted to increase in winter.

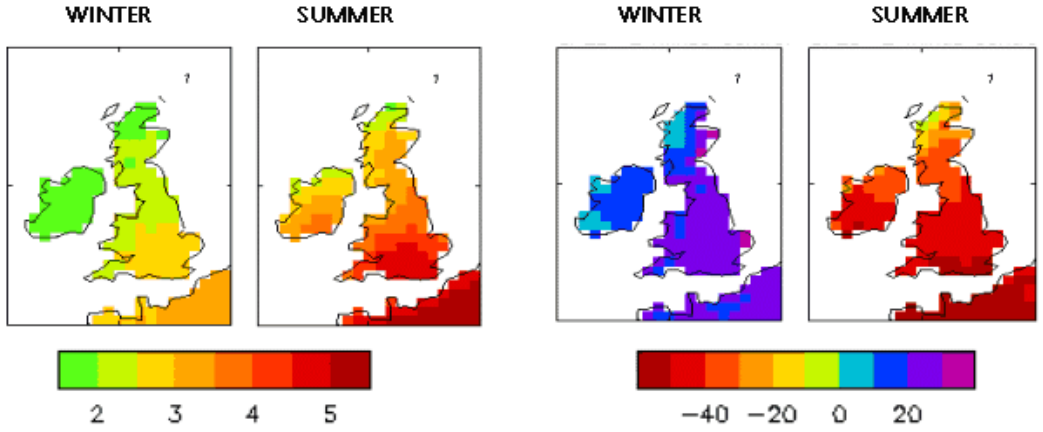

Figure caption: Change in average summer and winter temperature (°C, left picture) and precipitation (%, right picture), by the 2080s, compared to a recent climate (1961-90), predicted by the Hadley Centre regional climate model. These predictions form the UKCIP2002 Medium-High climate change scenario. Three other scenarios have been constructed, corresponding to other possible levels of greenhouse gas emissions in the future.

The scenarios are presented in a report*, written jointly by the Hadley Centre and the Tyndall Centre, for the UK Climate Impacts Programme (UKCIP), and funded by the Global Atmosphere Division of DEFRA. It is expected that these new scenarios will be widely used to assess the impacts of climate change on a range of UK regions and businesses. In addition to predictions of future change, a new baseline data set, containing monthly averages from 1961-2000 of many meteorological variables at 5 km resolution, has been constructed by the Met Office.

For a more detailed description, with details of how to access the scenario data and the reports, please visit the UKCIP web site www.ukcip.org.uk.

More information on the work of the Met Office's Hadley Centre

The Met Office has already carried out many assessments of the impact of climate change on sectors of business and industry, for example water resources, flooding, building subsidence for the insurance industry. To inquire how our Consulltancy group can make similar assessments, in the UK or globally, for your business, please contact us.

Notes

* Climate Change Scenarios for the United Kingdom: the UKCIP02 Scientific Report. M. Hulme, G.J. Jenkins, X. Lu, J.R. Turnpenny, T.D. Mitchell, R.G. Jones, J. Lowe, J.M. Murphy and D. Hassell. Tyndall Centre, University of East Anglia, April 2002.

A shorter version is also available as:
Climate Change Scenarios for the United Kingdom: the UKCIP02 Briefing Report. M. Hulme, G.J. Jenkins and J.R. Turnpenny. Tyndall Centre, University of East Anglia, April 2002.

Links

Department of Environment, Food and Rural Affairs: www.defra.gov.uk/environment/climatechange/index.htm
Tyndall Centre for Climate Change Research: www.tyndall.ac.uk
Intergovernmental Panel on Climate Change: www.ipcc.ch

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